

IN THE CLAIMS:

Please amend Claims 1, 2, 5, 8 to 10, 13, 16, 17 and 19, and add Claim 23, as follows. Note that all of the claims currently pending in this application, including those not presently being amended, have been reproduced below.

1. (Currently Amended) Search apparatus for searching a database for data in the form of units of a natural language and for generating output data representing the result of a search, the apparatus comprising:

interface means for receiving an input query in the form of units of the natural language and for outputting the results of the search ~~in the form of output data~~;

matching means for searching for and identifying any matches between the units of the input query and the units of the data so as to generate reference data;

generating means for, where there are unmatched units in the reference data ~~query and/or the data~~, generating context data in the form of one or more unmatched units of the reference data ~~query and/or the data~~, each unmatched unit having a predefined syntactic linguistic relationship to one ~~of the~~ or more each matched ~~unit~~ units; and

forming means for forming ~~said~~ output data as any said matched units and any respective said context data.

2. (Currently Amended) Search apparatus according to claim 1, wherein said generating means is adapted to generate the one or more each unmatched units ~~unit~~ of the context data having a predefined modification relationship to the respective matched units.

3. (Original) Search apparatus according to claim 1, wherein said generating means operates in accordance with one or more rules defining contextually important modification relationships between matched and unmatched units.

4. (Original) Search apparatus according to claim 1, wherein said generating means operates in accordance with one or more rules containing syntactic and semantic constraints for the formation of the context data.

5. (Currently Amended) Search apparatus according to claim 1, including parsing means for parsing the input query ~~and/or the data or the output of the matching means~~ to determine linguistic relationships between the units.

6. (Original) Search apparatus according to claim 1, wherein said forming means is adapted to form said output data as any said matched units associated with respective said unmatched units having said predefined linguistic relationship to respective matched units.

7. (Original) Search apparatus according to claim 1, wherein said forming means is adapted to form said output data as a layered hierarchical structure identifying sets of data by their context data.

8. (Currently Amended) Search apparatus according to claim 7, wherein said forming means is adapted to form said output data as a hierarchical structure

formed from one of a said matched units word comprising a head word of the input query, said context data for said head word forming one or more sublayers, any further matched units words forming further sublayers of said sublayers, the order of selection of said further matched units words being dependent on their modification relationship within the input query, said context data for said further matched units words forming yet further sublayers, said sets of data being identified by a final said sublayer in the hierarchical structure.

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9. (Currently Amended) A computer implemented data processing method for processing data to enhance the results of a search for data in the form of units of a natural language, the method comprising:

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receiving an input query in the form of units of the natural language and outputting a result in ~~the results of the searching~~ the form of output data;

searching for and identifying any matches between the units of the input query and units of the data so as to generate reference data;

for any matched units in the reference ~~query and/or the~~ data, generating context data in the form of one or more unmatched units of the reference ~~query and/or the~~ data, each unmatched unit having a predefined syntactic linguistic relationship to one or more of the ~~or each~~ matched unit units; and

forming ~~said~~ output data as any said matched units and any respective said context data.

10. (Currently Amended) A method according to claim 9, wherein the one or more ~~each~~ unmatched units ~~unit~~ of the context data is generated having a predefined modification relationship to the respective matched units.

11. (Original) A method according to claim 9, wherein the context data is generated in accordance with one or more rules defining contextually important modification relationships between matched and unmatched units.

12. (Original) A method according to claim 9, wherein the context data is generated in accordance with one or more rules containing syntactic and semantic constraints for the formation of the context data.

13. (Currently Amended) A method according to claim 9, including parsing one or more of the input query, ~~and/or~~ the data and ~~or~~ the output of the matching step to determine syntactic ~~linguistic~~ relationships between the units.

14. (Original) A method according to claim 9, wherein the output data is formed as any said matched units associated with respective said unmatched units having said predefined linguistic relationships to respective matched units.

15. (Original) A method according to claim 9, wherein said output data is formed as a layered hierarchical structure identifying sets of data by their context data.

16. (Currently Amended) A method according to claim 15, wherein said output data is formed from one of a said matched units ~~word~~ comprising a head word of the input query, said context data for said head word forming one or more sublayers, any further matched units ~~words~~ forming further sublayers of said sublayers, the order of selection of said further matched units ~~words~~ being dependent on their modification relationship within the input query, said context data for said further matched units ~~words~~ forming yet further sublayers, said sets of data being identified by a final said sublayer in the hierarchical structure.

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17. (Currently Amended) Data retrieval apparatus for retrieving desired information units of a natural language from a plurality of available information units, the apparatus comprising:

input means for inputting a query in units of the natural language;

matching means for searching for and identifying any matches between the units of the input query and the units of the available information units to identify the best matches between the input query and the plurality of available information units;

generating means for receiving the best matches and ~~for~~ where there are unmatched units in one or both of the input query and/or the information units, for generating context data in the form of one or more unmatched units each having a predefined linguistic relationship to one ~~of the~~ or more of the ~~each~~ matched ~~unit~~ units; and

output means for outputting desired information units as the best matches ~~with~~ and any respective said context data.

18. (Original) Data retrieval apparatus according to claim 17, wherein said output means is adapted to output the desired information units ordered by said context data.

19. (Currently Amended) A computer implemented data retrieval method for retrieving desired information units containing units of a natural language for a plurality of available information units, the method comprising:

inputting a query in units of the natural language;

searching for and identifying any matches between

the units of the input query and the units of the available information units to identify the best matches between the input query and the plurality of available information units;

for the best matches where there are unmatched units in one or both of the query and/or the information units, generating context data in the form of one or more unmatched units ~~unit~~ each having a predefined linguistic relationship to one or more of the ~~or each matched unit~~ units; and

outputting desired information units as the best matches ~~with~~ and any respective said context data.

20. (Original) The method of claim 19, wherein the desired information units are output ordered by said context data.

21. (Original) A carrier medium carrying processor implementable instructions for controlling a processor to carry out the method of any one of claims 9 to 16, 19 or 20.

22. (Original) A signal carrying processor implementable instructions for controlling a processor to carry out the method of any one of claims 9 to 16, 19 or 20.

23. (New) Search apparatus for searching a database for data in the form of units of a natural language, the apparatus comprising:

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interface means for receiving an input query in the form of units of the natural language and for outputting the results of the search;

matching means for searching for and identifying any matches between the units of the input query and the units of the data so as to generate reference data including a head unit which does not modify another unit;

parsing means for parsing one or both of the input query and the output of the matching means to determine linguistic relationships between the units;

generating means for, where there are unmatched units in the query, generating context data in the form of one or more unmatched units of the reference data, each unmatched unit having a predefined linguistic relationship to one or more of the matched units, said generating means operating in accordance with one or more rules defining contextually important modification relationships between matched and unmatched units; and

forming means for forming said output data as a layered hierarchical structure formed from said head unit of the input query, with said context data for said head unit forming one or more sublayers of said hierarchical structure, any further matched units forming further sublayers of said sublayers, the order of selection of said further matched units being dependent on their modification relationship within the input query, and any said context data for said further matched units forming yet further sublayers, said sets of data being identified by a final said sublayer in the hierarchical structure; and means for generating display data from said output data representing said hierarchical structure whereby a user of the search apparatus is presented with a plurality of choices comprising the best matches to the input query ordered in accordance with the context data.
